

# THE CORRELATION BETWEEN PARTICLE FLUXES ABOVE 1000 KM ALTITUDE IN THE POLAR REGIONS AND THOSE OBSERVED AT THE GEOSTATIONARY ORBIT

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We have found that there is a very good correlation between low energy (7-15 MeV) particle fluxes observed at altitudes of 3,000 km in the polar regions by the Akebono satellite and at the geostationary orbit by the GOES satellite, 36,000 km above the equator. Since it is difficult to measure the intensity of particles continuously in the polar regions it is extremely useful to be able to use GOES data instead. In this paper we present the SEP (solar energetic particle) and GCR (galactic cosmic ray) fluxes for each year between 1986 and 1995. The ratio of the SEP and GCR fluxes integrated over solar cycle 22 (1986–1995) was found to be 6.15 in the energy range between 30 MeV and 1 GeV. These results are useful in interpreting nitrate abundances in the polar regions and also cosmogenic isotope abundances.